

**TECHNICAL REVIEW DOCUMENT**  
**for**  
**MODIFICATION TO OPERATING PERMIT 02OPPB249**

Aquila, Inc. – Pueblo AIP Station  
Pueblo County  
Source ID 1010396

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Revised September 2005

**I. Purpose:**

This document establishes the decisions made regarding the requested modification to the Operating Permit for Aquila's Pueblo AIP Station. This document provides information describing the type of modification and the changes made to the permit as requested by the source and the changes made due to the Division's analysis. This document is designed for reference during review of the proposed permit by EPA and for future reference by the Division to aid in any additional permit modifications at this facility. The conclusions made in this report are based on the information provided in the requests for modification submitted to the Division on March 21 and April 12, 2005, e-mail correspondence and telephone conversations with the source. This narrative is intended only as an adjunct for the reviewer and has no legal standing.

Any revisions made to the underlying construction permits associated with this facility made in conjunction with the processing of this operating permit application have been reviewed in accordance with the requirements of Regulation No. 3, Part B, Construction Permits, and have been found to meet all applicable substantive and procedural requirements. This operating permit incorporates and shall be considered to be a combined construction/operating permit for any such revision, and the permittee shall be allowed to operate under the revised conditions upon issuance of this operating permit without applying for a revision to this permit or for an additional or revised construction permit.

**II. Description of Permit Modification Request/Modification Type**

The Operating Permit for the Pueblo AIP Station was issued on August 1, 2003. Aquila submitted requests to modify the permit on March 21 and April 12, 2005. The purpose of the modification is to revise the emission factors for NO<sub>x</sub> and CO based on recent testing. In addition, Aquila is requesting a change in permitted emission and fuel consumption limits, as well as revisions to the portable monitoring language.

Colorado Regulation No. 3, Part C, Section X.A identifies those modifications that can be processed under the minor permit modification procedures. Specifically, minor permit modifications "are not otherwise required by the Division to be processed as a

significant modification” (Colorado Regulation No. 3, Part C, Section X.A.6). The Division requires that “any change that causes a significant increase in emissions” be processed as a significant modification (Colorado Regulation No. 3, Part C, Section I.B.36.h.(i)). According to Appendix D of Regulation No. 3 (Section I.F, revisions adopted July 15, 1993, Subsection I.G for modifications) the Division considers that a significant increase in emissions is the potential to emit above the PSD significance levels. The requested increase in emissions is as follows:

	Permit Limits						
	Emission Limits (tons/yr)						Fuel Use (gallons/yr)
	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC	
Facility - Potential Prior to Mod.	6.5	6.5	16.7	249	58.4	11.4	1,290,000
Facility Potential After the Mod.	4.9	4.00	13	230	97.6	8.8	1,020,000
Change In Emission and Fuel Limits	-1.6	-2.5	-3.7	-19	39.2	-2.6	-270,000

Requested emissions for all pollutants will decrease after the modification, except for CO, which increase by 39.2 tons/yr. Since the increase in CO emissions is less than the PSD significance level (100 tons/yr), the requested modification qualifies as a minor modification.

The revisions requested in the portable monitoring language are primarily to clarify the requirements, not change the frequency of monitoring. Therefore, the Division does not consider that the changes to the portable monitoring are significant changes to existing monitoring, therefore, the revisions to the portable monitoring language also qualify as a minor modification.

### III. Modeling

The requested increase in CO emissions is below the modeling threshold of 100 tons/yr in the Division’s modeling guidance. Therefore, modeling is not required for this modification.

### IV. Discussion of Modifications Made

#### **Source Requested Modifications**

The Division addressed the source-s requested modifications as follows:

#### **Revise Emission Factors for CO and NO<sub>x</sub>**

The source requested that the emission factors be revised for CO and NO<sub>x</sub> in order to more appropriately reflect expected emissions year-round. The requested emission

factors are based on the maximum test result seen for the engines with an added “safety factor” of between 10 and 20%. The proposed emission factors are higher than the AP-42 emission factors but are within the range of engines in the AP-42 database. The Division has included the source’s proposed emission factors of 3.3 lb/mmBtu for NO<sub>x</sub> and 1.4 lb/mmBtu of CO in the revised permit. The emission factors in the current permit for NO<sub>x</sub> and CO are 2.745 lb/mmBtu and 0.644 lb/mmBtu, respectively.

#### Emission Increase, Fuel Change and Change in Hours of Operation

The source requested a decrease in emissions for PM, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> and VOC and an increase in CO emissions. As discussed above, Aquila requested a change to the emission factors for CO and NO<sub>x</sub> in order to more appropriately reflect emissions year-round. In addition, the source is taking a lower fuel use limit in order to reduce facility wide NO<sub>x</sub> emissions. Expected hours of operation from these engines are 1,181 hrs/yr per engine. Although an hours of operation limit is not included in the current permit, the Division will include one in this revised permit. With a limit on hours of operation for each engine, the portable monitoring results for each engine can be ratcheted up by allowable hours of operation. In lieu of a limit on hours of operation for each engine, it is not clear how the portable monitoring lbs/hr results are to be ratcheted up to an annual number. The Division has included the requested emission and fuel consumption limits in the revised permit.

#### Revisions to Portable Monitoring Language

The source submitted a proposed permit with their March 21, 2005 modification request and the proposed permit included suggested revisions to the Division’s portable monitoring language. The Division has included our latest revised portable monitoring language in the revised permit. The portable monitoring language was revised, in part, due to concerns raised by Aquila in recent meetings. Since the portable monitoring language in the revised permit is different from the language proposed by Aquila, the Division will submit the draft permit to Aquila for review prior to submitting the permit to EPA for their 45-day review period.

#### Other Modifications

In addition to the requested modifications made by the source, the Division used this opportunity to include changes to make the permit more consistent with recently issued permits, include comments made by EPA on other Operating Permits, as well as correct errors or omissions identified during inspections and/or discrepancies identified during review of this modification.

The Division has made the following revisions, based on recent internal permit processing decisions and EPA comments on other permits, to the Pueblo AIP Station Operating Permit with the source’s requested modifications. These changes are as follows:

## General

- Revised Reg 3 citations throughout the permit, as necessary, based on the recent revisions to Reg 3.

## Section I – General Activities and Summary

- In Condition 1.4, General Condition 3.g (Common Provisions, Affirmative Defense) was added as a State-only requirement.

## Section II.1 – Engines

- Removed Condition 1.8 (insignificant activities shall be less than 1 ton/yr), with the reduction in permitted NO<sub>x</sub> emissions, it is no longer necessary to track insignificant activity emissions.

## Section II.2 – Diesel Storage Tank

- The storage tank was included in the Title V operating permit because the tank was subject to recordkeeping requirements in 40 CFR Part 60 Subpart Kb. Effective October 15, 2003, revisions were made to NSPS Subpart Kb and under these revisions tanks that have a capacity of 151 m<sup>3</sup> (39,889 gallons) or greater and storing liquids with a maximum true vapor pressure less than 3.5 kPa (approx. 0.5 psia) are exempt from the provisions of 40 CFR Part 60 Subpart Kb. Since the tank has emissions below APEN de minimis levels and since the tank is no longer subject to 40 CFR Part 60 Subpart Kb, this tank is no longer subject to APEN reporting requirements and can be considered an insignificant activity. Therefore, this tanks has been removed from Section II of the permit and is now included in Appendix A.

## Section IV – General Conditions

- General Condition No. 3 was revised to reflect that 3.g (affirmative defense) is state-only until approved by EPA.

## Appendices

- Revised Appendices B and C to latest version